

Claims

- [c1] 1. A method for connecting networks of different types of transmission, the method comprising the steps of:
- transmitting user data as data packets between two network access units in a packet-based network;
 - forwarding the user data connectionlessly by network nodes between the two network access units;
 - receiving the user data in data channels at the network access units, wherein the user data is one of divided and depacketized as data packets and forwarded in data channels;
 - controlling the network access units via a signaling unit which processes signaling messages of a circuit-switched network; and
 - exchanging signaling messages between the signaling units, wherein the signaling messages include at least one information element for at least one of transmitting an address of a network access unit and transmitting an identifier for identifying a connection of the relevant network access unit.
- [c2] 2. A method for connecting networks of different types of transmission as claimed in claim 2, wherein an event occurs which is at least one of the information element contains an address at which the network access unit in the packet-based network can receive user data packets, and the identifier specifies a connection at a higher protocol level in the transmission in the packet-based network which is intended for receiving the user data packets.
- [c3] 3. A method for connecting networks of different types of transmission as claimed in claim 1, the method further comprising the step of:
- using separate information elements for transmitting the address and the identifier.
- [c4] 4. A method for connecting networks of different types of transmission as claimed in claim 1, the method further comprising the step

of:

structuring the information elements in accordance with the Q.765 standard.

[c5] 5. A method for connecting networks of different types transmission as claimed in claim 1, wherein the information element for the address contains, in the following order:

- a tag having a value of 3 for identifying the information element;
- an item referencing a length of the information element;
- compatibility information;
- an item referencing a format;
- an item referencing a version of the transmission protocol for the data packets; and
- the address.

[c6] 6. A method for connecting networks of different types of transmission as claimed in claim 1, wherein the information element for the identifier contains, in the following order:

- a tag having a value of 2 for identifying the information element;
- an item referencing a length of the information element;
- compatibility information; and
- the identifier.

[c7] 7. A method for connecting networks of different types of transmission as claimed in claim 1, wherein the packet-based network is a network operating in accordance with the Internet protocol.

[c8] 8. A method for connecting networks of different types of transmission as claimed in claim 1, the method further comprising the step of:

controlling a network node in a circuit-switched network via at least one of the signaling units.

[c9] 9. A method for connecting networks of different types of

transmission as claimed in claim 1, the method further comprising the step of:

carrying out signaling according to RTP protocol for real-time data transmission between the network access units.

[c10] 10. A method for connecting networks of different types of transmission as claimed in claim 1, the method further comprising the steps of:

exchanging messages according to at least one of the Q.763 protocol and the Q.764 protocol between the signaling units for connecting the networks; and

using a code having at least one and one half bytes and at most two bytes for designating the call entity.

[c11] 11. A method for connecting networks of different types of transmission as claimed in claim 10, the method further comprising the step of:

forwarding at least one of the information elements as component of protocol-conformal messages according to the Q.763 protocol and the Q.764 protocol.

[c12] 12. A method for connecting networks of different types of transmission as claimed in claim 1, wherein at least one network access unit is a unit remote from a control unit.

[c13] 13. A method for connecting networks of different types of transmission as claimed in claim 12, wherein messages are transmitted according to one of the MGCP protocol and the H.248 protocol between a signaling unit and a network access unit.

[c14] 14. A device for connecting networks of various types of transmission, comprising:

an interface to a network access unit between a circuit-switched network and a packet-based network; and

a signaling unit for exchanging signaling messages in accordance with a protocol for circuit-switched networks,

wherein the signaling unit transmits signaling messages having at least one information element for at least one of transmitting the address of a network access unit and transmitting an identifier for identifying a connection of the relevant network access unit, and user data is forwarded connectionlessly between the network access units in the packet-based network.

[c15] 15. A network access unit for connecting networks of various types of transmission, comprising:

a conversion unit for at least one of dividing user data received in data channels into data packets and depacketizing user data received as data packets, and forwarding the user data in the data channels;

an interface to a signaling unit which processes signaling messages of a circuit-switched network; and

a control unit which transmits at least one of the address of the network access unit and an identifier for identifying a connection of the network access unit to the signaling unit in at least one information element;

wherein the user data are forwarded connectionlessly by network nodes between two network access units.

[c16] 16. A program containing instructions, upon the execution of the instructions by a processor a device is controlled, wherein the device comprises an interface to a network access unit between a circuit-switched network and a packet-based network, and a signaling unit for exchanging signaling messages in accordance with a protocol for circuit-switched networks, wherein the signaling unit transmits signaling messages having at least one information element for at least one of transmitting the address of a network access unit and transmitting an identifier for identifying a connection of the relevant network access unit, and user data is forwarded connectionlessly between the network access units in the packet-based network.

[c17]

17. A program containing instructions, upon the execution of the instructions by a processor a network access unit is controlled, wherein the network access unit comprises a conversion unit for at least one of dividing user data received in data channels into data packets and depacketizing user data received as data packets, and forwarding the user data in the data channels, an interface to a signaling unit which processes signaling messages of a circuit-switched network, and a control unit which transmits at least one of the address of the network access unit and an identifier for identifying a connection of the network access unit to the signaling unit in at least one information element, wherein the user data are forwarded connectionlessly by network nodes between two network access units.

17. A program containing instructions, upon the execution of the instructions by a processor a network access unit is controlled, wherein the network access unit comprises a conversion unit for at least one of dividing user data received in data channels into data packets and depacketizing user data received as data packets, and forwarding the user data in the data channels, an interface to a signaling unit which processes signaling messages of a circuit-switched network, and a control unit which transmits at least one of the address of the network access unit and an identifier for identifying a connection of the network access unit to the signaling unit in at least one information element, wherein the user data are forwarded connectionlessly by network nodes between two network access units.